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312 Amendment to PTO

Amendment to PTO

Preliminary Amendment

Rule 116 Amendment (Final)

Appeal Brief to PTO

Application to PTO

CON, CPA, CIP, DIV

Provisional to Utility

Provisional App. to PTO

Notice of Appeal to PTO

Assignment to PTO

Certificate of Corr. Requested

Change of Correspondence Address

Comments on Allowance

Draft to Client for Filing

Election/Restriction to PTO

Fee Address Transmittal

Formal Dwgs to PTO

No IDS Required

IDS Filed

Issue Fee to PTO Publication Fee

Ltr. Sent to Clt. re: Office Action (Dallas ONLY)

Notification of Filing Receipt Error

Nonpublication Request Filed

Yes No

Oath/Declaration Filed (Missing Parts)

Patent Has Been Proofread

Petition

Petition to Revive

Petition to Withdraw Application

Request for Corrected Assignment Digest Sheet

Request for Corrected Filing Receipt

Request for Extension Filed Mo.

Request for Status to PTO

Review for Foreign Filing Letter to Client

Review for Reissue Letter Sent

Yes No

Verified Stmt. Filed

Supplemental Oath Filed

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DATE ACTION COMPLETED: 6/1/2004

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**In The United States Patent and Trademark Office
On Appeal From The Examiner To The Board
of Patent Appeals and Interferences**

In re Application of: Manoel Tenorio
Serial No.: 09/895,525
Filing Date: June 28, 2001
Group Art Unit: 2171
Examiner: Te Y. Chen
Title: *Association of Data with a Product Classification Schema*

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Technology Center 2100

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Willie Jiles

Willie Jiles

Date: June 1, 2004

Appeal Brief

Appellant has appealed to the Board of Patent Appeals and Interferences ("Board") from the decision of the Examiner mailed December 30, 2003, finally rejecting all pending Claims 1-37. Appellant filed a Notice of Appeal on March 30, 2004. Appellant respectfully submits this Appeal Brief in triplicate with the statutory fee of \$330.00.

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Real Party In Interest

This Application is currently owned by i2 Technologies US, Inc., as indicated by an Assignment recorded on June 28, 2001, from the sole inventor (Manoel Tenorio) to i2 Technologies, Inc., in the Assignment Records of the United States Patent and Trademark Office at Reel 011962, Frames 0834-0835, and an Assignment recorded on September 4, 2001, from i2 Technologies, Inc. to i2 Technologies, US, Inc., in the Assignment Records of the United States Patent and Trademark Office at Reel 012142, Frames 0065-0069.

Related Appeals and Interferences

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision regarding this Appeal.

Status of Claims

Claims 1-37 are pending in this Application, stand rejected pursuant to a final Office Action mailed December 30, 2003 and are all presented for appeal. All pending claims are shown in Appendix A.

Status of Amendments

Appellant's Response to a first Office Action mailed July 29, 2003 (the "First Office Action") was filed September 11, 2003 (the "Non-final Response"), amending each of Claims 1-37. The Examiner considered the Non-final Response and entered the claim amendments, but did not agree that the Application was in condition for allowance.

Appellant's Response to a final Office Action mailed December 30, 2003 (the "Final Office Action") was filed March 1, 2004 (the "Final Response"), amending Claims 12 and 36. The amendments to Claims 12 and 36 were made in response to the Examiner's rejection of Claims 12 and 36 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The rejection of Claims 12 and 36 were presented for the first time by the Examiner in the Final Office Action. Although Appellant believed Claims 12 and 36 recited patentable subject matter without amendment, Appellant amended Claims 12 and 36 to clarify that these claims recited computer-implemented methods performed using a computer system and were

directed to patentable subject matter. In an Advisory Action mailed March 23, 2004 (the "Advisory Action"), the Examiner refused to enter the amendments to Claims 12 and 36 on the grounds that "the newly added subject matters in claims 12 and 36 (e.g., using a computer system comprising one or more processing units and one or more memory units. . .) raise new issues that would require further consideration and/or search." (Advisory Action, Continuation Page)

Summary of Invention

In certain embodiments, the present invention includes a global content directory (GCD) 42, which may provide a directory of products or other data using a directory structure in which the products or other data are organized using a hierarchical classification schema. (See, e.g., Page 8, Lines 8-10 and 16-17) In certain embodiments, GCD 42 is a universal directory of the contents of multiple seller databases. (See Page 8, Lines 2-3) One issue associated with the use of GCD 42 is that since various types of seller databases 32 are associated with GCD 42, even though these databases 32 may include product data for the same type of product (for example, felt-tip pens), the databases 32 may identify the products using different attribute values, use different names for the same product attribute value, and/or quantify or distinguish product attribute values differently (using different units of measurement, for example). The same may be true for seller data that may be contained in databases 32. (See Page 20, Lines 20-27)

For one or more of these reasons, the seller's product data may not be properly associated with GCD 42 and seller 30 may be disadvantaged during the matching phase of a transaction. For example, if the product ontology associated with pens class 58 in directory structure 44 includes ink color as a product attribute and seller 30 does not have this information in its product data or does not refer to this information as "ink color" in its database 32, then a search conducted using GCD 42 for pens having a particular ink color may not properly identify products in database 32 that meet the search criteria. Alternatively, the seller's products may be identified in the search results, but may be ranked lower in the search results since seller 30 does not provide information about the ink color or does provide

the information but does not format the information appropriately for use with GCD 42. (Page 20, Line 28-Page 21, Line 6)

In certain instances, the ontology associated with the data to be associated with GCD 42 based on the ontology used in a particular schema of GCD 42 is not known. (*See* Page 21, Lines 7-9 and 18-19) A number of techniques may be used to identify data in one or more tables of a seller database 32, or other data source and to associate this data with one or more classes of GCD 42 according to the ontology of a particular schema used by GCD 42. (Page 21, Lines 19-22) In certain embodiments, the present invention includes a data association module 39, which may include software for implementing one or more techniques that identify product and/or seller data in a seller database 32 and properly associate this data with a global content directory (GCD) 42 based on the ontology used in a particular schema of GCD 42. (*See* Page 21, Lines 7-9 and 22-24)

In certain embodiments, data association module 39 accesses the data (the "target data") to be associated with a schema used by GCD 42 (the "target schema"), for example, by accessing a seller database 32 or other appropriate data source and receiving the target data from an appropriate source such as a seller 30. Data association module 39 may also access the target schema with which the target data is to be associated, which may, for example, involve determining the taxonomy of classes included in the target schema and the ontology of each class, or, alternatively, determining only the ontology associated with selected classes (for example, the leaf classes). (*See* Page 22, Lines 6-20)

An ontology associated with a class may include the names of attributes associated with the class. Since these attribute names are used to identify attribute values in seller databases 32 and repository 34, these attribute names or similar attribute names may be used to identify the target data. For example, these or similar attribute names may be used a column headings in a table including the target data (for example, like the column headings of table 150). Therefore, data association module 39 may attempt to identify portions of the target data, such as column headings of a table of target data, that match the names of the attributes included in the ontology of one or more classes of the target schema. As an

example, data association module 39 may search the target data for each attribute name associated with the ontologies of the target schema. Data association module 39 may identify the data associated with any matching attribute names (such as the values in a column of the target data having a heading matching an attribute name) so that the data may be associated with the appropriate classes of the target schema. (See Page 22, Line 21-Page 23, Line 2)

Data association module 39 may attempt to identify portions of the target data that are similar to the names of the attributes included in the ontology of one or more classes of the target schema. For example, data association module 39 may use an electronic thesaurus to identify equivalents of the attribute names included in the ontologies of the target schema. For example, data association module 39 may determine that “*point width*” and “*tip thickness*” are equivalents of a “*tip size*” attribute. Data association module 39 may then search the target data for each of the equivalents. If a match with a equivalents is found, data association module 39 identifies the target data associated with the matching equivalent (such as the values in a column identified by the equivalent) so that the data may be associated with classes having an ontology including the attribute name from which the equivalent was derived. Data association module may identify the portions of the target data using any suitable number of techniques, which may be performed in succession. (See Page 23, Lines 6-21)

For example, data association module 39 may attempt to identify portions of the target data by comparing the target data with the values associated with attributes included in the ontology of one or more classes of the target schema. Data association module 39 may, for example, determine that the following values are associated with a *tip size* attribute in the ontology of a particular class: “broad”, “medium”, and “fine”. Data association module 39 may then search the target data for this collection of values (for example, a column of data in a table including these attributes). The attribute values may be stored in seller databases 32 and/or repository 34 and may be identified using pointers associated with the relevant classes. To compare the target data with known attribute values, data association module 39 may access the values for a particular attribute and search for one or more of these attribute values in the target data. Alternatively, data association module 39 may identify portions of the

target data that match known attribute values using any other suitable technique. The portions of the target data (for example, particular columns in a table of target data) that are found to match the values associated with a particular attribute may then be associated with the attribute. (See Page 23, Line 22-Page 24, Line 5)

As another example, data association module 39 may attempt to identify portions of the target data by comparing the range of values included in the target data with the ranges of values (for example, a numerical range) associated with attributes included in the ontology of one or more classes of the target schema. For example, if a column in a table of target data includes numerical values in the same range as one or more columns of attribute values in a seller database 32 or repository 34, then data association module 39 may determine that the values in the target data correspond to the particular attribute. To compare a range of a portion of the target data with the range of known attribute values, data association module 39 may determine the range of values in a particular portion of the target data (such as the data in a particular column) and search for a similar range in the product data stored in seller databases 32 and repository 34. Alternatively, data association module 39 may identify ranges of portions of the target data that match ranges of known attribute values using any other suitable technique. The portions of the target data (for example, particular columns in a table) that are found to match a range of values associated with a particular attribute may then be associated with the attribute. (See Page 24, Line 21-Page 25, Line 8)

As another example, data association module 39 may attempt to identify portions of the target data by comparing symbols included in the target data with symbols associated with attribute values associated with one or more classes of the target schema. As an example only, if a column in a table of target data includes dollar signs or other currency symbols, then data association module 39 may determine that the values in the column correspond to a particular attribute or attributes whose values also include dollar signs or other currency symbols. Alternatively, data association module 39 may be programmed to identify particular symbols as being associated with particular attributes (for example, dollar signs are associated with *price* attribute values). (See Page 25, Lines 9-17)

As another example, data association module 39 may identify target data based on the formatting of the data. As an example only, data may be identified based on the position of a decimal point in values included in a portion of the target data. The portions of the target data (for example, particular columns in a table) that are found to include symbols and/or formatting associated with a particular attribute or attributes may then be associated with the attribute. (See Page 25, Lines 18-28)

As another example, data association module 39 may attempt to identify portions of the target data using vector space analysis of multiple portions of the target data, such as values in multiple columns of a table including the target data. As an example only, data association module 39 may choose n columns of the target data and “plot” (not necessarily in a graphical sense, but merely analytically) the values in each column along the axis of one of n dimensions. A similar plot may be made of attribute values associated with one or more classes. The axes of the target data plot may then be rotated until a point of maximum correlation is reached between the target data and the selected attribute values. (See Page 25, Line 32- Page 26, Line 11)

As another example, data association module 39 may use a statistical correlation technique. Although such techniques may take many forms, one example of such a technique is determining that one attribute in a particular ontology is mathematically related to another attribute in that ontology. For example, for an ontology associated with a class into which box fans are categorized, the values associated with a *height* attribute and a *width* attribute of the ontology may typically be equal or close to equal and the values associated with a *depth* attribute may be equal to a particular fraction of the *height* and *width* values. Furthermore, the power of a box fan (for example, the value of a *wattage* attribute of the ontology) may be related to the size of the fan (for example, the product of *height* and *width* values may be related to a *wattage* value using a particular mathematical function). Using these known correlations, data association module 39 may identify similar correlations between corresponding values in columns or other portions of target data and thus determine that these columns of data should be associated with the classes having associated attribute values with similar correlations. (See Page 26, Line 23- Page 27, Line 5)

Data association module 39 may associate the data identified using one or more of the previous techniques with appropriate classes of the target schema. For example, data association module 39 may identify various portions of the target data as being associated with several possible attributes associated with multiple classes until data association module 39 gathers enough information to determine which class or classes the target data should be associated with. Furthermore, even though data association module 39 may not be able to associate any individual portion of the data with a particular attribute of a class ontology (for example, all portions of the data could individually be associated with numerous different classes), the combination of the “potential” classes with which each portion of data may be associated may identify the particular class or classes with which the data as a whole is to be associated. (See Page 27, Lines 11-28)

Data association module 39 may associate data with one or more classes of the target schema using any suitable technique. For example, data association module 39 may generate a pointer that identifies the location of a some or all of the target data and associate this pointer with the appropriate class or classes. Therefore, when a user performs a search from such a class, the pointers will identify the target data as relevant data to be searched. (See Page 28, Lines 1-6)

Statement of Issues

1. Do Claims 12 and 36 recite patentable subject matter under 35 U.S.C. § 101?
2. Are Claims 1-37 enabled by Appellant’s Specification in compliance with 35 U.S.C. § 112, first paragraph?
3. Are Claims 1-37 patentable over U.S. Patent 6,038,668 to Chipman, et al. (“*Chipman*”) under 35 U.S.C. § 102(b)?

Grouping of Claims

Appellant has made an effort to group claims to reduce the burden on the Board. In the Argument section of this Appeal Brief, where appropriate, Appellant presents arguments as to why particular claims subject to a ground of rejection are separately patentable from other claims subject to the same ground of rejection.

Appellant has concluded that the claims may be grouped together as follows:

1. Group 1 may include Claims 1-8, 23-30, and 34;
2. Group 2 may include Claims 9-11 and 31-33;
3. Group 3 may include Claims 12-19;
4. Group 4 may include Claims 20-22;
5. Group 5 may include Claims 35 and 37; and
6. Group 6 may include Claim 36.

Argument

The rejection of Claims 12 and 36 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is improper and should be reversed by the Board. The rejection of Claims 1-37 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement is improper and should be reversed by the Board. The rejection of Claims 1-37 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman* is improper and should be reversed by the Board.

I. Claims 12 and 36 Recite Patentable Subject Matter under 35 U.S.C. § 101

A. Overview

Claims 12 and 36 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Appellant respectfully submits that the rejection of Claims 12 and 36 under 35 U.S.C. § 101 is improper and should be reversed by the Board. Appellant addresses each group subject to this ground of rejection in order.

B. The rejection of Claims 12 and 36 under 35 U.S.C. § 101 was Not Timely

At the outset, Appellant notes that the Examiner did not reject Claims 12 and 36 under 35 U.S.C. § 101 as being directed to non-statutory subject matter until the Final Office Action, thus leaving Appellant with little opportunity to respond to such a rejection. Such failure is contrary to the M.P.E.P.'s instruction that "[p]iecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds" M.P.E.P. § 707.07(g). Furthermore, M.P.E.P. § 2106, which relates to patentable subject matter and computer-related inventions, states:

It is essential that patent applicants obtain prompt yet complete examination of their patent applications. Under the principles of compact prosecution, each claim should be reviewed for compliance with every statutory requirement for patentability *in the initial review of the application*, even if one or more claims are found to be deficient with respect to some statutory requirement. Thus, *Office personnel should state all reasons and bases for rejecting claims in the first Office action* A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.

(emphasis added)

The Examiner's failure to present these rejections of Claims 12 and 36 in the First Office Action minimized Appellant's opportunity to respond to such rejections in a single prosecution of the Application and has increased the cost of prosecution for Appellant. For example, although Appellant believed Claims 12 and 36 recited patentable subject matter without amendment, in the Final Response Appellant submitted certain amendments Claims 12 and 36 to further clarify that these claims recite computer-implemented methods performed using a computer system and are directed to patentable subject matter. In the Advisory Action, the Examiner summarily stated that Appellant had not overcome the rejections under 35 U.S.C. § 101 and that the amendments to Claims 12 and 36 raised new issues that would require further consideration or search. (*See*, Advisory Action, Continuation Sheet) Although the Examiner is undoubtedly responsible for the examination of a large number of applications, placing inordinate constraints on the Examiner's time, Appellant

cannot be penalized for this fact and is still entitled to a proper examination of this Application in compliance with all applicable statutes, regulations, rules, and case law.

Nonetheless, Claims 12 and 36 are clearly directed to patentable subject matter even without entry of the amendments proposed by Appellant in the Final Response, as Appellant demonstrates below.

C. Standard

The patent laws define patentable subject matter as "any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereto." *See* 35 U.S.C. § 101. When an abstract idea is reduced to a practical application, the abstract idea no longer stands alone if the practical application of the abstract idea produces a useful, concrete, and tangible result. This then satisfies the requirements of 35 U.S.C. § 101. *See In re Alappat*, 33 F.3d 1526, 1544, 31 U.S.P.Q. 2d 1545, 1557 (Fed. Cir. 1994); *see also State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 U.S.P.Q. 2d 1596, 1601-02 (Fed. Cir. 1998). While an abstract idea by itself may not satisfy the requirements of 35 U.S.C. § 101, an abstract idea when practically applied to produce a useful, concrete, and tangible result satisfies 35 U.S.C. § 101. *See AT&T Corp. v. Excel Comm. Inc.*, 172 F.3d 1352, 1357, 50 U.S.P.Q. 1447, 1452 (Fed. Cir. 1999) (stating that as technology progressed, the CCPA overturned some of the earlier limiting principles regarding 35 U.S.C. § 101 and announced more expansive principles formulated with computer technology in mind); *see also In re Musgrave*, 431 F.2d 882, 167 U.S.P.Q. 280 (CCPA 1970) (cited by the Federal Circuit in *AT&T Corp.*, 172 F.3d at 1356). Thus, producing a useful, concrete, and tangible result is the key to patentability according to *State Street* and other applicable case law.

"Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101." M.P.E.P. § 2106. Indeed, a method or process remains statutory even if some or all of the steps therein can be performed in the human mind, with the aid of the human mind, or because it may be necessary for one performing the method or process to think. *See In re Musgrave*, 431 F.2d at 893, 167

U.S.P.Q. at 289. As stated by the Federal Circuit in *State Street* and as explicitly confirmed in the M.P.E.P., "[T]ransformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete, and tangible result' -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." *State Street*, 149 F.3d at 1373, 47 U.S.P.Q. 2d at 1601-02; M.P.E.P. § 2106.

D. Group 3 (Claims 12-19)

Claim 12 stands rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Appellant respectfully submits that Claim 12 clearly recites statutory subject matter.

Claims 12-19 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 12 and 36 are grouped separately from each other in Groups 3 and 6, respectively, and from Claims 20-22 in Group 4, for purposes of the prior art rejection discussed below in Section III. Claims 12-19 recite limitations that are substantially different from limitations recited in other claims.

Claim 12 is directed to a "method for associating target data with a product classification schema." As recited in Claim 12, the method comprises:

- accessing a first product classification schema, the first schema comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, the first schema further comprising ontologies associated with one or more of the classes, each ontology comprising one or more product attributes;
- accessing target data to be associated with the first schema, the target data organized according to a second product classification schema;

- determining one or more classes of the first schema with which at least a portion of the target data should be associated based on an automatic comparison, without translating the target data from the second schema to the first schema, between the target data and the product attributes of the ontologies of the first schema or between the target data and values for one or more of the product attributes of the ontologies of the first schema; and
- associating the at least a portion of the target data with one or more classes of the first schema in response to determining, based on the automatic comparison, the one or more classes of the first schema with which the at least a portion of the target data should be associated.

Thus, “associating target data with a product classification schema” is one practical application of independent Claim 12, the useful, concrete, and tangible result being the product classification schema with which at least a portion of the target data is associated.

For at least these reasons, Appellant respectfully submits that Claim 12 and all of its dependent claims are directed to statutory subject matter in compliance with 35 U.S.C. § 101, and request that the Board reverse the rejection of Claim 12 under 35 U.S.C § 101.

E. Group 4 (Claims 20-22)

Although the Examiner did not specifically reject Claims 20-22 under 35 U.S.C. § 101 as being directed to non-statutory subject matter, Claims 20-22 depend from Claim 12, which the Examiner did reject under 35 U.S.C. § 101. Appellant respectfully submits that Claims 20-22 clearly recite statutory subject matter.

Claims 20-22 are separately patentable from every other claim subject to the same rejection. For example, Claims 20-22 (Group 4) are grouped separately from Claims 12-19 (Group 2) and Claim 36 (Group 6) for purposes of the prior art rejection discussed below in Section III.

Claims 20-22 depend from Claim 12, which Appellant has shown above to be clearly directed to statutory subject matter, and are allowable for at least this reason. Thus, Appellant respectfully submits that Claims 20-22 are directed to statutory subject matter in compliance with 35 U.S.C. § 101, and request that the Board reverse any rejection of Claims 20-22 under 35 U.S.C § 101.

F. Group 6 (Claim 36)

Claim 36 stands rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Appellant respectfully submits that Claim 36 clearly recites statutory subject matter.

Claim 36 is separately patentable from every other claim subject to the same ground of rejection. For example, Claims 12 and 36 are grouped separately from each other in Groups 3 and 6, respectively, and from Claims 20-22 in Group 4, for purposes of the prior art rejection discussed below in Section III. Claim 36 recites limitations that are substantially different from limitations recited in other claims.

Claim 36 is directed to a “method for associating target data with a product classification schema.” Claim 36 recites certain limitations substantially similar to those discussed above with reference to Claim 12, along with certain additional limitations. Thus, for substantially similar reasons, “associating target data with a product classification schema” is one practical application of independent Claim 36, the useful, concrete, and tangible result being the product classification schema with which at least a portion of the target data is associated.

For at least these reasons, Appellant respectfully submits that Claim 36 is directed to statutory subject matter in compliance with 35 U.S.C. § 101, and request that the Board reverse the rejection of Claim 36 under 35 U.S.C § 101.

G. Appellant Believes the Examiner Mistakenly Indicated that Claim 1 was Rejected under 35 U.S.C. § 101

Appellant notes that the Examiner never rejected Claim 1 under 35 U.S.C. § 101 in either the Non-final Office Action or the Final Office Action. However, in the Advisory Action, the Examiner stated, “[I]n addition, applicant has not overcome the rejection of claims 1 and 12 under 35 U.S.C. §101, therefore, the finality of the office action . . . is proper.” (Advisory Action, Continuation Page) Appellant believes the Examiner intended to state the Examiner’s position that, in the Examiner’s opinion, Applicant has not overcome the rejection of Claims 12 and 36 under 35 U.S.C. §101 (as Claim 1 was never rejected under 35 U.S.C. § 101). Furthermore, Appellant believes it would be improper for the Examiner to submit a new ground of rejection in an Advisory Action.

Even if the Examiner did intend to reject Claim 1 under 35 U.S.C. § 101, Claim 1 clearly recites patentable subject matter. Claim 1 is directed to “a computer-implemented system for associating target data with a product classification schema.” First, Claim 1 specifically recites the system of Claim 1 is a computer-implemented system. Second, recites certain limitations substantially similar to those discussed above with reference to Claims 12. Thus, for substantially similar reasons, “associating target data with a product classification schema” is one practical application of independent Claim 1, the useful, concrete, and tangible result being the product classification schema with which at least a portion of the target data is associated.

For at least these reasons, to the extent the Examiner attempts to maintain a rejection of Claim 1 under 35 U.S.C. § 101, Appellant respectfully submits that Claim 1 is directed to statutory subject matter in compliance with 35 U.S.C. § 101, and request that the Board reverse such a rejection of Claim 1 under 35 U.S.C § 101.

II. Claims 1-37 Comply with the Enablement Requirement of 35 U.S.C. § 112, First Paragraph

A. Overview

Claims 1-37 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Appellant respectfully submits that the rejection of Claims 1-37 under 35 U.S.C. § 112, first paragraph, is improper and should be reversed by the Board. Appellant addresses each group subject to this ground of rejection in order.

B. Standard

"The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with the information known in the art without undue experimentation." M.P.E.P. § 2164.01 citing *United States v. Teletronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988). There is no requirement that the specification provide concrete examples or illustrations of claimed steps. In fact, "[c]ompliance with the enablement requirement of 35 U.S.C. 112, first paragraph, does not turn on whether an example is disclosed." M.P.E.P. § 2164.02. All that is required is that the "information contained in the disclosure of an application must be sufficient to inform those skilled in the relevant art how to both make and use the claimed invention. *Detailed procedures for making and using the invention may not be necessary if the description is sufficient to permit those skilled in the art to make and use the invention.*" M.P.E.P. § 2164 (emphasis added).

C. Group 1 (Claims 1-8, 23-30, and 34)

Claims 1-8, 23-30, and 34 stand rejected under 35 U.S.C. § 112, first paragraph as not being enabled by the Specification. Appellant respectfully submits that these claims are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

Claims 1-8, 23-30, and 34 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 1-8, 23-30, and 34 (Group 1) are grouped separately from the claims of Groups 3, 4, and 6 because the claims of Group 1 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 1 are grouped separately from the claims of Groups 2, 4, 5, and 6 for purposes of the prior art rejection discussed below in Section III.

In particular, Appellant respectfully submits that the Specification provides sufficient information and detail to enable those skilled in the art at the time of invention to make and use the claimed invention. Appellant addresses below each of the Examiner's objections raised in the Final Office Action. In addressing each of the Examiner's objections, Appellant refers to example descriptions within the Specification; however, reference to these example descriptions should not be used to limit Applicant's claims.¹

For example, with respect to Claim 1, the Examiner states that Applicant "fails to disclose the transition mechanism to transform a single product classification schema as stated in the preamble of these claims into the set of first schema and second schema as cited in the body of these claims, in addition, applicant did not define the metes and bounds of the claimed first schema and second schema." (Final Office Action, Page 4)

First, Appellant notes that the term "transition mechanism" is not used anywhere in Claim 1. Rather, as the preamble and body of Claim 1 makes clear, Claim 1 recites "associating target data with a product classification schema." Nor does Claim 1 recite "***transform[ing] a single product classification schema . . . into the*** set of first schema and ***second schema***" as the Examiner suggests. (See Final Office Action, Page 4) Instead, Claim 1 recites "determining one or more classes of the first schema with which at least a portion of the target data should be associated based on an automatic comparison, ***without translating*** the target data from the second schema to the first schema, between the target data and the product attributes of the ontologies of the first schema or between the target data and values

¹ See *Superguide Corp. v. DirecTV Enters., Inc.*, 2004 WL 253013, at *3 (Fed. Cir. 2004) (stating that the specification of a patent cannot be used to import limitations into a claim that are not recited in the claim to narrow or otherwise change the ordinary meaning of a claim term).

for one or more of the product attributes of the ontologies of the first schema," and "associating the at least a portion of the target data with one or more classes of the first schema in response to determining, based on the automatic comparison, the one or more classes of the first schema with which the at least a portion of the target data should be associated" accordingly.

Second, apart from the mischaracterizations of Appellant's claim language, the Examiner's statement that there is no disclosure of the "transition mechanism" is simply incorrect. For example, the *data association module* recited in the preamble of Claim 1 is described in sufficient detail in the body of Claim 1 itself to enable those of ordinary skill in the art at the time of invention to make and use the claimed invention. In addition, the Specification describes the data association module in sufficient detail to enable those of ordinary skill in the art at the time of invention to make and use the claimed invention. For example, at least at Page 9, lines 1-6; Page 20, line 20 through Page 21, line 25; and Page 21, line 26 through Page 28, line 25, the Specification includes a description of example operation of the data association module. To avoid burdening the record Appellant does not reproduce these excerpts in the Appeal Brief, particularly because the majority of these excerpts are already included in the Summary of the Invention above.

Third, it is not entirely clear what the Examiner means by "the metes and bounds of the claimed first schema and second schema." (See Final Office Action, Page 4) Claim 1 clearly recites that the first product classification schema may be any product classification "comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, the first schema further comprising ontologies associated with one or more of the classes, each ontology comprising one or more product attributes," and that the second product classification schema may be any product classification schema. In addition, example descriptions of the first product classification schema and the second product classification schema appear at least at the above-cited portions of the Specification, as well as at Page 9, line 1 through Page 10, line 25. Appellant emphasizes that these are merely example schemas and should not be used to limit Appellant's claimed invention.

Fourth, the Examiner stated that Appellant "also fails to disclose what mechanism was used to organize the claimed target data according to a second product classification schema." (Final Office Action, Page 4) At least at Page 20, line 20 through Page 21, line 25, Appellant describes, as an example second product classification schema, product and/or seller data in a seller database that is to be associated with GCD 42 based on the ontology used in a particular schema of GCD 42. This portion of the Specification certainly discloses the limitations to which the Examiner referred in sufficient detail to enable those of ordinary skill in the art at the time of invention to make and use the claimed invention.

For at least these reasons, Appellant respectfully submits that Claim 1 is clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejection of Claim 1 under 35 U.S.C § 112, first paragraph.

For substantially similar reasons to those discussed above with reference to independent Claim 1, Appellant respectfully submits that independent Claims 23 and 34 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejection of Claims 23 and 34 under 35 U.S.C § 112, first paragraph.

With respect to dependent Claims 2-8 and 24-30, the Examiner merely stated in the Final Office Action, "As to claims 2-11, 13-22, and 24-33, these claims have the same defect as their base claims, hence are rejected for the same reasons." (Final Office Action, Page 4) The Examiner did not provide any additional proposed reasons why he believed dependent Claims 2-8 and 24-30 were not enabled by the Specification. Thus, because Claims 2-8 and 24-30 depend from independent Claims 1 and 23, respectively, which Appellant has shown above to be clearly enabled by Appellant's Specification, dependent Claims 2-8 and 24-30 are also clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

For at least these reasons, Appellant respectfully submits that dependent Claims 2-8 and 24-30 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. §

112, first paragraph, and requests that the Board reverse the rejections of dependent Claims 2-8 and 24-30 under 35 U.S.C. § 112, first paragraph.

D. Group 2 (Claims 9-11 and 31-33)

Dependent Claims 9-11 and 31-33 stand rejected under 35 U.S.C. § 112, first paragraph as not being enabled by the Specification. Appellant respectfully submits that Claims 9-11 and 31-33 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

Claims 9-11 and 31-33 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 9-11 and 31-33 (Group 2) are grouped separately from the claims of Groups 3, 4, and 6 because the claims of Group 2 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 2 are grouped separately from the claims of Groups 1, 3, 5, and 6 for purposes of the prior art rejection discussed below in Section III.

With respect to dependent Claims 9-11 and 31-33, the Examiner merely stated in the Final Office Action, "As to claims 2-11, 13-22, and 24-33, these claims have the same defect as their base claims, hence are rejected for the same reasons." (Final Office Action, Page 4) The Examiner did not provide any additional proposed reasons why he believed dependent Claims 9-11 and 31-33 were not enabled by the Specification. Thus, because Claims 9-11 and 31-33 depend from independent Claims 1 and 24, respectively, which Appellant has shown above to be clearly enabled by Appellant's Specification, dependent Claims 9-11 and 31-33 are also clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

For at least these reasons, Appellant respectfully submits that dependent Claims 9-11 and 31-33 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejections of dependent Claims 9-11 and 31-33 under 35 U.S.C. § 112, first paragraph.

E. Group 3 (Claims 12-19)

Claims 12-19 stand rejected under 35 U.S.C. § 112, first paragraph as not being enabled by the Specification. Appellant respectfully submits that these claims are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

Claims 12-19 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 12-19 (Group 2) are grouped separately from the claims of Groups 1, 2, and 5 because the claims of Groups 1, 2, and 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 2 are grouped separately from the claims of Groups 2, 4, 5, and 6 for purposes of the prior art rejection discussed below in Section III.

In the Final Office Action, the Examiner rejected independent Claim 12 under 35 U.S.C. § 112, first paragraph, for substantially similar reasons to those discussed above with reference to independent Claim 1. (*See* Office Action, Page 4) Independent Claim 12 is clearly enabled by Appellant's specification for substantially similar reasons to those discussed above with reference to independent Claim 1.

For at least these reasons, Appellant respectfully submits that Claim 12 is clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejection of Claim 12 under 35 U.S.C. § 112, first paragraph.

With respect to dependent Claims 13-19, the Examiner merely stated in the Final Office Action, "As to claims 2-11, 13-22, and 24-33, these claims have the same defect as their base claims, hence are rejected for the same reasons." (Final Office Action, Page 4) The Examiner did not provide any additional proposed reasons why he believed dependent Claims 13-19 were not enabled by the Specification. Thus, because Claims 13-19 depend from independent Claim 12, which Appellant has shown above to be clearly enabled by

Appellant's Specification, dependent Claims 13-19 are also clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

For at least these reasons, Appellant respectfully submits that dependent Claims 13-19 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejections of dependent Claims 13-19 under 35 U.S.C. § 112, first paragraph.

F. Group 4 (Claims 20-22)

Dependent Claims 20-22 stand rejected under 35 U.S.C. § 112, first paragraph as not being enabled by the Specification. Appellant respectfully submits that Claims 20-22 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

Claims 20-22 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 20-22 (Group 4) are grouped separately from the claims of Groups 1, 2, and 5 because the claims of Groups 1, 2, and 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 4 are grouped separately from the claims of Groups 1, 3, 5, and 6 for purposes of the prior art rejections discussed below in Section III.

With respect to dependent Claims 20-22, the Examiner merely stated in the Final Office Action, "As to claims 2-11, 13-22, and 24-33, these claims have the same defect as their base claims, hence are rejected for the same reasons." (Final Office Action, Page 4) The Examiner did not provide any additional proposed reasons why he believed dependent Claims 20-22 were not enabled by the Specification. Thus, because Claims 20-22 depend from independent Claim 12, which Appellant has shown above to be clearly enabled by Appellant's Specification, dependent Claims 20-22 are also clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

For at least these reasons, Appellant respectfully submits that dependent Claims 20-22 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejections of dependent Claims 20-22 under 35 U.S.C. § 112, first paragraph.

G. Group 5 (Claims 35 and 37)

Claims 35 and 37 stand rejected under 35 U.S.C. § 112, first paragraph as not being enabled by the Specification. Appellant respectfully submits that Claims 35 and 37 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

Claims 35 and 37 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 35 and 37 (Group 5) are grouped separately from the claims of Groups 3, 4, and 6 because the claims of Group 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 5 are grouped separately from the claims of Groups 1-4 for purposes of the prior art rejections discussed below in Section III.

In the Final Office Action, the Examiner rejected independent Claims 35 and 37 under 35 U.S.C. § 112, first paragraph, for substantially similar reasons to those discussed above with reference to independent Claim 1. (*See* Office Action, Page 4) Independent Claims 35 and 37 are clearly enabled by Appellant's specification for substantially similar reasons to those discussed above with reference to independent Claim 1.

For at least these reasons, Appellant respectfully submits that Claims 35 and 37 are clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejection of Claims 35 and 37 under 35 U.S.C § 112, first paragraph.

H. Group 6 (Claim 36)

Claim 36 stands rejected under 35 U.S.C. § 112, first paragraph as not being enabled by the Specification. Appellant respectfully submits that Claim 36 is clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph.

Claim 36 is separately patentable from every other claim subject to the same ground of rejection. For example, Claim 36 (Group 6) is grouped separately from the claims of Groups 1, 2, and 5 because the claims of Groups 1, 2, and 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claim of Group 6 is grouped separately from the claims of Groups 1-4 for purposes of the prior art rejections discussed below in Section III.

In the Final Office Action, the Examiner rejected independent Claims 36 under 35 U.S.C. § 112, first paragraph, for substantially similar reasons to those discussed above with reference to independent Claim 1. (*See* Office Action, Page 4) Independent Claim 36 is clearly enabled by Appellant's specification for substantially similar reasons to those discussed above with reference to independent Claim 1.

For at least these reasons, Appellant respectfully submits that Claim 36 is clearly enabled by Appellant's Specification in compliance with 35 U.S.C. § 112, first paragraph, and requests that the Board reverse the rejection of Claim 36 under 35 U.S.C. § 112, first paragraph.

III. Claims 1-37 are Allowable over *Chipman*

A. Overview

Claims 1-37 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*. Appellant respectfully submits that this rejection of Claims 1-37 under 35 U.S.C. § 102(b) is improper and should be reversed by the Board. Appellant addresses each group subject to this ground of rejection in order.

B. The Examiner Failed to Even Consider Appellant's Claim Amendments and Arguments with Respect to the Allowability of the Claims.

In the Non-final Response, Appellant presented numerous amendments (in fact each of Claims 1-37 were amended) in addition to detailed arguments as to why *Chipman* failed to disclose, teach, or suggest the limitations recited in Claims 1-37, as amended. In the opening paragraph of the "Remarks" section of the Non-final Response, Appellant made the statement that "[c]ertain of these amendments have not narrowed the claims, and *none are considered necessary for patentability*." (Non-final Response, Page 18) (emphasis added) In the Final Office Action, the Examiner stated that "[b]ecause of the enable [sic] issue of the amended claims, and per applicant's citation that 'Applicant has made clarifying amendments to Claims 1-37. Certain of these amendments have not narrowed the claims and none are considered necessary for patentability' as such, the examiner regards that applicant has no intention to use instant amendment for applying a patent of his invention. Thus, based on the direction from applicant, the examiner maintains the same art rejection as filed in the previous office action" (Final Office Action, Page 5) (citations omitted; emphasis in original)

First, Appellant respectfully submits that Claims 1-37 are clearly enabled by the Specification, as discussed above in Section II.

Second, Appellant respectfully submits that the Examiner erred by failing to give proper patentable weight to all the limitations recited in Appellant's claims. Appellant's statement that "none [of the amendments] are considered necessary for patentability" was merely an assertion by Appellant that, in Appellant's opinion, the claims were allowable over

the cited references without amendment. Appellant is fully entitled, and is in fact encouraged by the Federal Circuit case law, to state this opinion on the record to rebut any presumption that Appellant acquiesces to the Examiner's rejections or that the amendments were necessary for patentability. However, despite Appellant's disclaimer, Appellant *did amend* certain claims in the Non-final Response and the Examiner apparently *did enter* these amendments in the Final Office Action. (See Final Office Action, Page 2) Furthermore, Appellant discussed these amendments in responding to the Non-final Office Action. Thus, the Examiner should have considered these amendments and arguments when evaluating whether Appellant's claims are allowable over *Chipman*.

Third, because the Examiner did not consider Appellant's amendments when applying *Chipman* to Appellant's claims, the Examiner prematurely issued the Final Office Action. According to 37 C.F.R. § 1.112, after a reply by Applicant to a non-final office action, the application will be reconsidered and again examined. By not considering Appellant's amendments presented in the Non-final Response, the Examiner did not reconsider and again examine the Application, including the amendments to Appellant's claims, as required under 37 C.F.R. § 1.112. Instead, the Examiner merely reiterated the anticipation rejection presented in the Non-final Office Action without considering the amendments.

Furthermore, Appellant notes that "[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and *answer the substance of it.*" M.P.E.P. § 707.07 (f) (emphasis added). Appellant respectfully submits that the Examiner failed to answer the substance of Appellant's arguments with respect to the allowability of amended Claims 1-37 over *Chipman* under 35 U.S.C. § 102(b) in that the Examiner did not even refer to Appellant's lengthy discussion of *Chipman*'s failure to disclose, teach, or suggest the limitations recited Appellant's claims. Instead, the Examiner merely ignored Appellant's amendments and arguments, and reiterated the anticipation rejection presented in the Non-final Office Action.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P. §

2131. The inadequacy of the Examiner's "examination" of the Application in light of Appellant's Non-final Response (including consideration of the amendments) is apparent in the fact that the Examiner did not demonstrate, and did not even assert, that *Chipman* discloses the amended portions of Applicant's claims (as amended in the Non-Final Response). Thus, for the Examiner to properly make the Final Office Action final, the Examiner was required to have at least examined the Application in light of Appellant's Non-final Response (including consideration of the amendments). Of course, the Examiner did not withdraw the finality of the Final Office Action after Appellant indicated in the Final Response the Examiner's failure to comply with at least 37 C.F.R. § 1.112 and M.P.E.P. § 707.07(f), and instead issued an Advisory Action.

In any event, as described below, Appellant submits that *Chipman* fails to disclose, teach, or suggest various limitations recited in the pending claims.

C. Standard

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P. § 2131. In addition, "[t]he elements must be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990); M.P.E.P. § 2131.

D. Chipman

Chipman merely discloses a networked catalog search, retrieval, and information correlation and matching system, which allows suppliers to publish information in electronic catalogs and structure the information in an object-oriented representation distributed across a network of computers. (Abstract) According to *Chipman*, a scanning engine scans computers having accessible pages to locate all pages having **the predefined organizational structure** as including class, attribute, and methods information. (Column 3, Lines 27-30) (emphasis added) To enable each information supplier to provide requisite information on its pages, a "sector" portal establishes common terms (class, attribute, and method names) for the

suppliers and consumers to use. (Column 4, Lines 9-12) *Thus, with Chipman, an information supplier must use common, predefined terms in order to supply information to the portal.* *Chipman* further states, "The sector portal is so named because each industry sector is contemplated to have at least one governing portal from which all other portals in that industry sector derive their common vocabulary, taxonomy, or ontology." (Column 4, Lines 12-16)

To provide information to portal 102, suppliers 104 and 105 encode their pages using a predefined protocol. Use of the protocol encourages placing available information in an organized format. The protocol may include tag codes, which describe the information contained therein. (Column 6, Lines 7-12) A tag (e.g., <UC*>, where "*" may include additional tags) is the identifier to the portal that a page is in an organizational format usable by the portal. (Column 6, Lines 27-29) A web crawler associated with the portal periodically scans the web for pages and parses the pages. (Column 7, Lines 17-19) The parsed pages containing a usable organization structure (e.g., identified as including the <UC*> tags) are stored in a knowledge base for indexing and future retrieval. (Column 7, Lines 20-23) A portal as disclosed in *Chipman* also includes a protocol translator that facilitates supplier publication of HTML pages that are compliant with the protocol and the industry common vocabulary or ontology. (Column 8, Lines 42-45)

E. Group 1 (Claims 1-8, 23-30, and 34)

Claims 1-8, 23-30, and 34 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*. Appellant respectfully submits that these claims are clearly patentable over *Chipman*.

Claims 1-8, 23-30, and 34 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 1-8, 23-30, and 34 (Group 1) are grouped separately from the claims of Groups 3, 4, and 6 because the claims of Group 1 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 1 are grouped separately from the claims of Groups 2, 4, 5, and 6 because the claims of Group 1 recite limitations that are substantially different from limitations

recited in the claims of Groups 2, 4, 5, and 6. In addition, claims excluded from Group 1 that are subject to the same ground of rejection and that depend on independent Claims 1, 23, and 34 recite patentable distinctions over the prior art beyond those recited in independent Claims 1, 23, and 34 and cannot be properly grouped with independent Claims 1, 23, and 34 for purposes of this Appeal.

Independent Claim 1 of the present application, for example, recites:

A computer-implemented system for associating target data with a product classification schema, the system comprising a data association module operable to:

access a first product classification schema, the first schema comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, the first schema further comprising ontologies associated with one or more of the classes, each ontology comprising one or more product attributes;

access target data to be associated with the first schema, the target data organized according to a second product classification schema;

determine one or more classes of the first schema with which at least a portion of the target data should be associated based on an automatic comparison, without translating the target data from the second schema to the first schema, between the target data and the product attributes of the ontologies of the first schema or between the target data and values for one or more of the product attributes of the ontologies of the first schema; and

associate the at least a portion of the target data with one or more classes of the first schema in response to determining, based on the automatic comparison, the one or more classes of the first schema with which the at least a portion of the target data should be associated.

Chipman fails to disclose, teach, or suggest various limitations as specifically recited in Claim 1.

For example, at a minimum, *Chipman* fails to disclose, teach, or suggest the data association module, as recited Claim 1, that is operable to perform at least the following limitations as specifically recited in Claim 1:

- determine one or more classes of the first schema with which at least a portion of the target data should be associated ***based on an automatic comparison, without***

translating the target data from the second schema to the first schema, between the target data and the product attributes of the ontologies of the first schema or between the target data and values for one or more of the product attributes of the ontologies of the first schema; and

- associate the at least a portion of the target data with one or more classes of the first schema *in response to determining, based on the automatic comparison*, the one or more classes of the first schema with which the at least a portion of the target data should be associated.

In contrast, *Chipman* discloses a networked catalog search, retrieval, and information correlation and matching system that allows suppliers to publish information in electronic catalogs and structure the information in an object oriented representation distributed across a network of computers. (Abstract) According to *Chipman*, a scanning engine scans computers having accessible pages to locate all pages having *the predefined organizational structure* as including class, attribute, and methods information. (Column 3, Lines 27-30) To enable each information supplier to provide requisite information on its pages, a "sector" portal establishes common terms (class, attribute, and method names) for the suppliers and consumers to use. (Column 4, Lines 9-12) Thus, an information supplier must use common, predefined terms in order to supply information to the portal. *Chipman* further states, "The sector portal is so named because each industry sector is contemplated to have at least one governing portal from which all other portals in that industry sector derive their common vocabulary, taxonomy, or ontology." (Column 4, Lines 12-16)

To provide information to portal 102, suppliers 104 and 105 encode their pages using a predefined protocol. Use of the protocol encourages placing available information in an organized format. The protocol may include tag codes, which describe the information contained therein. (Column 6, Lines 7-12) A tag (e.g., <UC*>, where "*" may include additional tags) is the identifier to the portal that a page is in an organizational format usable by the portal. (Column 6, Lines 27-29) A web crawler associated with the portal periodically scans the web for pages and parses the pages. (Column 7, Lines 17-19) The parsed pages containing a usable organization structure (e.g., identified as including the <UC*> tags) are

stored in a knowledge base for indexing and future retrieval. (Column 7, Lines 20-23) A portal as disclosed in *Chipman* also includes a protocol translator that facilitates supplier publication of HTML pages that are compliant with the protocol and the industry common vocabulary or ontology. (Column 8, Lines 42-45)

According to *Chipman*, the supplier of information may be a high end supplier or a low end supplier, each type submitting information to the portal in a different way. In the case of a low end supplier (who lacks the capability or desire to support organized pages locally), pages 307 are retrieved from the portal, pages 307 including at least one template for populating and submitting back onto web 101. (Column 8, Lines 51-57) Template pages 307 include at least one initial set of class, attribute, and method identifiers for population. (Column 8, Lines 58-60) Thus, the supplier posts information by simply filling out a predefined template that identifies what supplier information corresponds to each of the class, attribute, and method entries.

In the example provided in *Chipman*, a supplier may request from the portal the design template for electric motors, and in reply, the protocol translator may retrieve the desired class/subclass, attribute, and method ontologies. The ontologies are translated into an HTML form and sent to the supplier's internet browser as template pages, which the supplier then populates (with supplier information) as completed pages. The completed pages are forwarded back to the portal where the pages are parsed and added to the knowledge base. (See, Column 8, Line 60 through Column 9, Line 3) Thus, the parser of the portal knows exactly what information corresponds to class, attribute, and method, respectively, because the supplier of the information merely filled in a template.

Alternatively, a high end supplier according to *Chipman* has the capability to publish its own protocol-compliant pages. (Column 10, Lines 21-22) However, the high end supplier is still simply filling in a predefined template. According to *Chipman*, a supplier requests a template page, which may be transferred to the protocol translator where the template page is combined with data (class, method, attribute, etc.) specifying the supplied products and processes from the supplier. (Column 10, Lines 26-30)

Thus, at best, *Chipman* allows an information supplier to submit information in a predefined template (i.e. tagged in a particular, predefined way) to be published and searched. The only mapping between the supplier's information and the predefined ontologies at the portal that occurs is when the supplier manually looks at the template to determine what information should be tagged "class," what information should be tagged "attribute," and what information should be tagged "method."

In contrast to Appellant's recited data association module, *Chipman requires human intervention to determine what supplier information should be input into the template as each of class, attribute, and method.* Furthermore, *Chipman* fails to disclose, teach, or suggest a data association module operable to "determine one or more classes of the first schema with which at least a portion of the target data should be associated *based on an automatic comparison, without translating the target data from the second schema to the first schema*, between the target data and the product attributes of the ontologies of the first schema or between the target data and values for one or more of the product attributes of the ontologies of the first schema." There simply is no such "comparison" disclosed in *Chipman*, much less the "automatic comparison" recited in Claim 1, because the system in *Chipman* does not need such a comparison. A supplier in *Chipman* merely fills out a predefined template, which specifies what information is a class, what information is an attribute, and what information is a method, to make the supplier's information available to the portal (and to other users via the web). The system of *Chipman* does not need to look at what information the supplier is actually submitting, because the supplier has labeled the submitted information by placing it in a particular portion of the template.

The Examiner compared a Tool Suite disclosed in *Chipman* to certain limitations recited in Claim 1. (See, e.g., Non-final Office Action, Page 5 and Final Office Action, Page 6) However, Appellant submits that the tools discussed in the cited portion of *Chipman* are unrelated to these limitations. Certain users of the system disclosed in *Chipman* may search supplier provided information to for components to be included in end products. These tools are available to these users. For example, the tools may include a requirements integration and verification tool, which assures that assembled design objects (end items) meet individual requirements and comply with predefined rules. (Column 13, Lines 43-46) As another

example, the tools may include an affordability monitor, which determines if the cost of the included items and the processes required for a combination of items exceeds predetermined budgets. (Column 13, Lines 46-48). However, nowhere do these tools "determine one or more classes of the first schema with which at least a portion of the target data should be associated *based on an automatic comparison, without translating the target data from the second schema to the first schema*, between the target data and the product attributes of the ontologies of the first schema or between the target data and values for one or more of the product attributes of the ontologies of the first schema," as recited in Claim 1.

Moreover, because *Chipman* fails to disclose, teach, or suggest the recited "an automatic comparison" or even a "comparison," *Chipman* necessarily fails to disclose, teach, or suggest a data association module operable to "associate the at least a portion of the target data with one or more classes of the first schema *in response to determining, based on the automatic comparison*, the one or more classes of the first schema with which the at least a portion of the target data should be associated," as recited in Claim 1 as amended.

For at least these reasons, *Chipman* fails to disclose, teach, or suggest the particular combinations of limitations specifically recited in independent Claim 1. Independent Claim 1 and all of its dependent claims are therefore patentable over *Chipman*. Thus, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claims 1-8 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*.

For substantially similar reasons to those discussed above with reference to independent Claim 1, *Chipman* fails to disclose, teach, or suggest the particular combinations of limitations specifically recited in independent Claims 23 and 34. Independent Claim 23 and 34, and all of their respective dependent claims, are therefore patentable over *Chipman*. Thus, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claims 23-30 and 34 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*.

F. Group 2 (Claims 9-11 and 31-33)

Claims 9-11 and 31-33 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*. Appellant respectfully submits that these claims are clearly patentable over *Chipman*.

Claims 9-11 and 31-33 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 9-11 and 31-33 (Group 2) are grouped separately from the claims of Groups 3, 4, and 6 because the claims of Group 2 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 2 are grouped separately from the claims of Groups 1, 3, 5, and 6 because the claims of Group 2 recite limitations that are substantially different from limitations recited in the claims of Groups 1, 3, 5, and 6.

Dependent Claims 9-11 (which depend from independent Claim 1) and 31-33 (which depend from independent Claim 24), depend from independent Claims 1 and 24, which Appellant has shown above to be clearly patentable over *Chipman*, and are allowable for at least this reason. In addition, dependent Claims 9-11 and 31-33 recite further patentable distinctions over *Chipman*.

For example, dependent Claim 9 recites that “the values for one or more of the product attributes of the ontologies of the first schema with which the target data may be compared are stored in one or more seller databases, the values in the seller databases being identified by one or more pointers associated with one or more classes of the first schema.” Dependent Claim 31 recites substantially similar limitations. The Examiner apparently equates the Legacy Databases disclosed in *Chipman* to the one or more seller databases recited in Claims 9 and 31. (See Final Office Action, Page7) Even assuming for the sake of argument that this equation could be made, *Chipman* would still fail to disclose, teach, or suggest that “the values in the seller databases [are] identified by one or more pointers associated with one or more classes of the first schema,” as recited in Claims 9 and 31. Additionally, another portion of *Chipman* on which the Examiner relies as disclosing the

limitations of Claims 9 and 31 fails to make up for this deficiency of *Chipman*. (See Office Action, Page 7) For example, *Chipman* discloses that “the protocol translator may map data stored in legacy databases 406 to fields in the template, create and HTML page 404 embodying that data and the special protocol tags, and transfer that page 404 to web server 403 for posting.” (Column 10, Lines 33-37) This in no way discloses, teaches, or suggest that “the values in the seller databases [are] identified by one or more pointers associated with one or more classes of the first schema,” as recited in Claims 9 and 31.

As another example, dependent Claim 10 recites “wherein associating the at least a portion of the target data with one or more classes of the first schema comprises associating one or more pointers to the target data with the one or more classes of the first schema.” Dependent Claim 32 recites substantially similar limitations. One portion of *Chipman* on which the Examiner relies merely discloses that “[m]ethod tags contain pointers to computational algorithms, and to the ‘signature’ of the method. A signature defines what input and output information the algorithm needs and provides, respectively.” (Column 3, Lines 23-26) However, as disclosed in *Chipman*, method tags merely “provide access to procedures invoked by the integrator when he evaluates possible uses of the item,” (See Column 3, Lines 21-23), and have nothing to do with “associating the at least a portion of the target data with one or more classes of the first schema,” let alone doing so by “associating one or more pointers to the target data with the one or more classes of the first schema,” as recited in Claims 10 and 32.

As another example, dependent Claim 11 recites “wherein associating the at least a portion of the target data with one or more classes of the first schema comprises associating one or more pointers to specific portions of the target data with one or more product attributes included in the ontology of the one or more classes of the first schema.” Dependent Claim 33 recites substantially similar limitations. Again, as disclosed in *Chipman*, the method tags merely “provide access to procedures invoked by the integrator when he evaluates possible uses of the item,” (See Column 3, Lines 21-23), and have nothing to do with “associating the at least a portion of the target data with one or more classes of the first schema,” let alone doing so by “associating one or more pointers to specific portions of the target data with one

or more product attributes included in the ontology of the one or more classes of the first schema,” as recited in Claims 11 and 33.

For at least these reasons, *Chipman* fails to disclose, teach, or suggest the particular combinations of limitations specifically recited in dependent Claims 9-11 and 31-33. Dependent Claims 9-11 and 31-33 are therefore patentable over *Chipman*. Thus, Appellant respectfully requests that the Board reverse the Examiner’s rejection of Claims 9-11 and 31-33 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*.

G. Group 3 (Claims 12-19)

Claims 12-19 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*. Appellant respectfully submits that these claims are clearly patentable over *Chipman*.

Claims 12-19 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 12-19 (Group 3) are grouped separately from the claims of Groups 1, 2, and 5 because the claims of Groups 1, 2, and 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 3 are grouped separately from the claims of Groups 2, 4, 5, and 6 because the claims of Group 3 recite limitations that are substantially different from limitations recited in the claims of Groups 2, 4, 5, and 6. In addition, claims excluded from Group 3 that are subject to the same ground of rejection and that depend on independent Claim 12 recite patentable distinctions over the prior art beyond those recited in independent Claim 12.

Independent Claim 12 is allowable at least for substantially similar reasons to those discussed above with reference to independent Claim 1. For at least these reasons, *Chipman* fails to disclose, teach, or suggest the particular combinations of limitations specifically recited in independent Claim 12. Independent Claim 12 and all of its dependent claims are therefore patentable over *Chipman*. Thus, Appellant respectfully requests that the Board

reverse the Examiner's rejection of Claims 12-19 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*.

H. Group 4 (Claims 20-22)

Dependent Claims 20-22 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*. Appellant respectfully submits that these claims are clearly patentable over *Chipman*.

Claims 20-22 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 20-22 (Group 4) are grouped separately from the claims of Groups 1, 2, and 5 because the claims of Groups 1, 2, and 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 4 are grouped separately from the claims of Groups 1, 3, 5, and 6 because the claims of Group 4 recite limitations that are substantially different from limitations recited in the claims of Groups 1, 3, 5, and 6.

Dependent Claims 20-22 depend from independent Claim 12, which Appellant has shown above to be clearly patentable over *Chipman*, and are allowable for at least this reason. In addition, dependent Claims 20-22 recite further patentable distinctions over *Chipman*.

For example, dependent Claim 20 recites certain limitations substantially similar to those recited in dependent Claims 9 and 31 and is thus allowable for substantially similar reasons to those discussed above with reference to dependent Claims 9 and 31. As another example, dependent Claim 21 recites certain limitations substantially similar to those recited in dependent Claims 10 and 32 and is thus allowable for substantially similar reasons to those discussed above with reference to dependent Claims 10 and 32. As another example, dependent Claim 22 recites certain limitations substantially similar to those recited in dependent Claims 11 and 33 and is thus allowable for substantially similar reasons to those discussed above with reference to dependent Claims 11 and 33.

For at least these reasons, *Chipman* fails to disclose, teach, or suggest the particular combinations of limitations specifically recited in dependent Claims 20-22. Dependent Claims 20-22 are therefore patentable over *Chipman*. Thus, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claims 20-22 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*.

I. Group 5 (Claims 35 and 37)

Claims 35 and 37 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*. Appellant respectfully submits that these claims are clearly patentable over *Chipman*.

Claims 35 and 37 are separately patentable from every other claim subject to the same ground of rejection. For example, Claims 35 and 37 (Group 5) are grouped separately from the claims of Groups 3, 4, and 6 because the claims of Group 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 5 are grouped separately from the claims of Groups 1-4 because the claims of Group 5 recite limitations that are substantially different from limitations recited in the claims of Groups 1-4.

Independent Claims 35 and 37 recites certain limitations substantially similar to those recited in independent Claims 1 and 23, respectively, and are allowable at least for substantially similar reasons to those discussed above with reference to independent Claims 1 and 23. In addition, independent Claims 35 and 37 recite further patentable distinctions over *Chipman*.

For example, with respect to Claim 35, *Chipman* fails to disclose, teach, or suggest at a minimum, "determine one or more classes of the first schema with which at least a portion of the target data should be associated based on a an automatic comparison, without translating the target data from the second schema to the first schema, between the target data and the product attributes of the ontologies of the first schema or between the target data and

values for one or more of the product attributes of the ontologies of the first schema, *the values being stored in one or more seller databases and identified by one or more pointers associated with one or more classes of the first schema.*” Claim 37 recites a substantially similar limitation. As discussed above with reference to dependent Claim 9, The Examiner apparently equates the Legacy Databases disclosed in *Chipman* to the one or more seller databases recited in Claims 35 and 37. (See Final Office Action, Page 7) Even assuming for the sake of argument that this equation could be made, *Chipman* would still fail to disclose, teach, or suggest that “the values [are] stored in one or more seller databases and identified by one or more pointers associated with one or more classes of the first schema,” as recited in Claims 35 and 37. Additionally, another portion of *Chipman* on which the Examiner relies as disclosing the limitations of Claims 35 and 37 fails to make up for this deficiency of *Chipman*. (See Office Action, Page 7) For example, *Chipman* discloses that “the protocol translator may map data stored in legacy databases 406 to fields in the template, create and HTML page 404 embodying that data and the special protocol tags, and transfer that page 404 to web server 403 for posting.” (Column 10, Lines 33-37) This in no way discloses, teaches, or suggest that “the values being stored in one or more seller databases and identified by one or more pointers associated with one or more classes of the first schema,” as recited in Claims 35 and 37.

For at least these reasons, *Chipman* fails to disclose, teach, or suggest the particular combinations of limitations specifically recited in independent Claims 35 and 37. Independent Claims 35 and 37 and all of their respective dependent claims are therefore patentable over *Chipman*. Thus, Appellant respectfully requests that the Board reverse the Examiner’s rejection of Claims 35 and 37 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*.

J. Group 6 (Claim 36)

Claim 36 stands rejected under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*. Appellant respectfully submits that this claim is clearly patentable over *Chipman*.

Claim 36 is separately patentable from every other claim subject to the same ground of rejection. For example, Claim 36 (Group 6) is grouped separately from the claims of Groups 1-2 and 5 because the claims of Groups 1-2 and 5 are not subject to the rejections under 35 U.S.C. § 101, discussed above in Section I. In addition, the claims of Group 6 are grouped separately from the claims of Groups 1-4 because the claim of Group 5 recite limitations that are substantially different from limitations recited in the claims of Groups 1-4.

Independent Claim 36 recited certain limitations substantially similar to those recited in independent Claims 35 and 37, and is allowable at least for substantially similar reasons to those discussed above with reference to independent Claims 35 and 37.

For at least these reasons, *Chipman* fails to disclose, teach, or suggest the particular combinations of limitations specifically recited in independent Claim 36. Independent Claims 36 and all of its respective dependent claims are therefore patentable over *Chipman*. Thus, Appellant respectfully requests that the Board reverse the Examiner's rejection of Claim 36 under 35 U.S.C. § 102(b) as being unpatentable over *Chipman*.

Conclusion

Appellant has demonstrated that the present invention, as claimed, is clearly patentably distinguishable over the prior art cited by the Examiner. Therefore, Appellant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a Notice of Allowance of all pending claims.

Appellant has enclosed a check in the amount of \$330.00 for this Appeal Brief. Although Appellant believes no other fees are due, the Commissioner is hereby authorized to charge any additional fees and credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Date: June 1, 2004

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